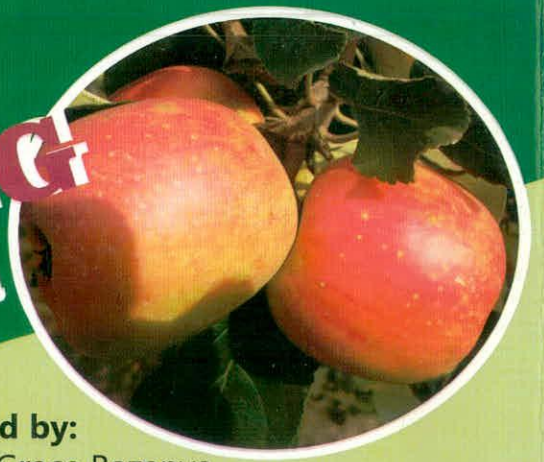
APPLE GROWING in Central Uganda



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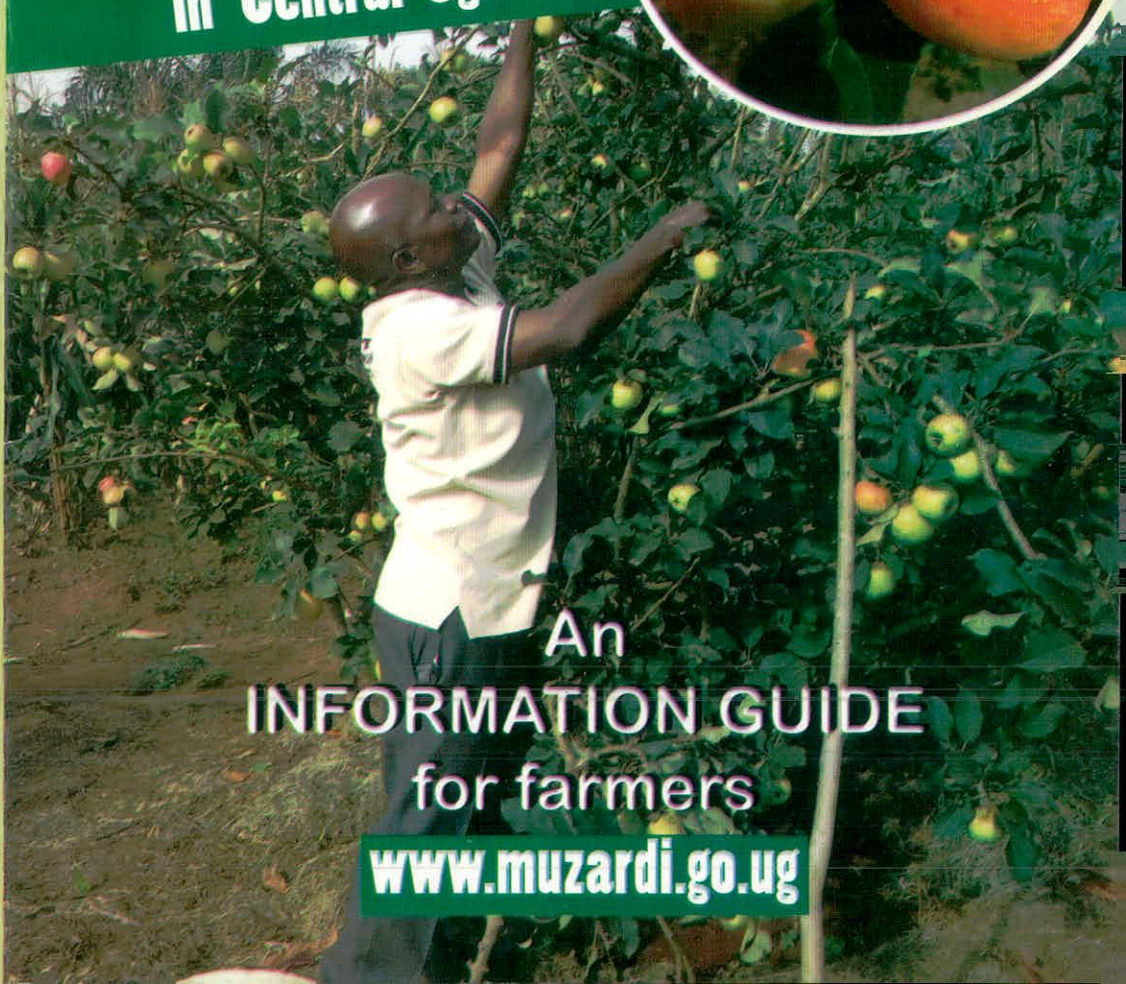

An
INFORMATION GUIDE
for farmers

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BACKGROUND TO APPLE GROWING IN UGANDA

In Uganda, apple growing started in 1999 when the National Forestry Resources Research Institute (NaFORRI) and Kawanda Agricultural Research Institute (KARI) initiated trials in the highlands of south-western Uganda (Kabale), with the aim of offering farmers an alternative source of income.

Studies conducted in central Uganda showed that apples can grow well in the more humid areas of the region. To achieve success in growing apples in central Uganda, you need to focus on varieties which are adapted to the region and the right agronomic practices.

The varieties selected for the region are; **Anna** and **Golden dorset**.
These two varieties were selected because:

- They have good fruit shape, colour, size and taste.
- They are resistant to diseases (apple scab, powdery mildew, apple canker and leaf rust)

Apples are cross pollinating plants. Golden dorset and Anna are excellent at pollinating each other and it is advisable to plant both in one orchard. However, good fruits have been obtained where only one variety is planted in the orchard.

HOW TO RAISE APPLE SEEDLINGS



Graft Union

Grafting method is used in raising apple seedlings. Grafting is the art of uniting or joining the parts of two independent plants in such a manner that they unite together and develop into a single independent plant. The part which is to become the root system is called a **rootstock**. The rootstock has a well developed root system and it is resistant to soil borne diseases.

The part of the graft which is to become the shoot system is called the **scion**. The scion is the type preferred by the farmer or market, with good characteristics such as flavour (taste, and sweetness, acidity), texture, appearance (colour, shape), time to ripen and keeping qualities with respect to market demand.

PLANTING THE APPLES

Apples require well drained and fertile soils that do not dry up easily.
When planting the apple tree, dig up a hole of two and a half feet wide and two feet deep. When digging the hole, separate the top black soil from the bottom red soil. Add manure to improve soil fertility by mixing one basin of manure with the black soil and fill the hole. Then plant the grafted seedling. When planting the graft union should remain above the soil surface and should never get in touch with the soil. Water the seedling immediately with 2 to 5 litres of water. Subsequently watering can be done at least once a day depending on the prevailing weather conditions. The grafting tape should be removed two weeks after transplanting. The recommended spacing for apples is 4m x 4m.



Anna variety has an oval shape



Golden dorset variety has a round conical shape

INDUCING BRANCHING

For an apple tree to produce many fruits, it must have several branches. When the young apple tree is about four feet tall, it should be trained to produce lateral branches by bending the stem or cutting off the tip of the main stem.



The bent apple plant

INDUCING FLOWERING

Since apple is a temperate crop, whose flowering is induced by the winter coldness, in the tropics it does not flower readily and winter conditions must be simulated. This is done by manually defoliating (manual leaf shedding) the plant. During manual defoliation, all the leaves should be removed and this is done towards the end of the dry season when most of the leaves have turned yellow and the buds bulging.

When the rainy season starts the buds open up to produce flowers and new leaves are produced.

A good apple plant can produce flower buds as early as six months after transplanting but it advisable to remove those buds until the plant is two years old when appropriate maturity is attained and the stem is strong enough to hold the fruits. The apple fruit takes 3-4 months to mature after pollination.

ACCESS TO SEEDLINGS

Good quality seedlings can be obtained from NARO-MUZARDI (Contact details on the back cover page)

You can start planting apples as ornamentals in your compound and after learning how to manage them you can plant on a large scale.